HP DECwindows Motif for OpenVMS

Documentation Overview

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This overview provides information about DECwindows Motif for OpenVMS Version 1.6 documentation.

Revision/Update Information:	This manual supersedes the *HP DECwindows Motif for OpenVMS Alpha Documentation Overview* for Version 1.5.
Operating Systems:	OpenVMS I64 Version 8.3
	OpenVMS Alpha Version 8.3
Software Versions:	DECwindows Motif for OpenVMS I64 Version 1.6
	DECwindows Motif for OpenVMS Alpha Version 1.6

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Preface

This guide describes the contents, organization, and availability of the DECwindows Motif for OpenVMS Version 1.6 (DECwindows Motif) documentation on the OpenVMS I64 and OpenVMS Alpha platforms.

Intended Audience

This document is intended for DECwindows Motif users, programmers, and system managers.

Related Documents

For additional information about OpenVMS or DECwindows Motif products and services, visit the following web site:

`http://www.hp.com/go/openvms`

Reader's Comments

HP welcomes your comments on this manual. Please send comments to either of the following addresses:

Internet	**openvmsdoc@hp.com**
Mail	Hewlett-Packard Company OSSG Documentation Group, ZKO3-4/U08 110 Spit Brook Rd. Nashua, NH 03062-2698

How To Order Additional Documentation

For information about how to order additional documentation, visit the following World Wide Web address:

`http://www.hp.com/go/openvms/doc/order`

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Documentation Summary

This chapter describes all the manuals that make up the extended DECwindows Motif documentation set. This set is currently a combination of industry-standard reference materials and DECwindows Motif product documentation available from HP.

Specifically, this chapter provides brief descriptions of the following types of documentation:

- Installation Documentation (see Section 1.1)
- User Documentation (see Section 1.2)
- New Desktop Documentation (see Section 1.3)
- Programming Documentation (see Section 1.4)

Manuals published by HP are available either in print from the DECwindows Motif documentation kit or online from the OpenVMS web site and layered product media. Information regarding the availability of industry-standard reference manuals can be obtained separately through their respective publishers. See Chapter 2 for additional information.

1.1 Installation Documentation

The DECwindows Motif installation documentation consists of manuals intended for system administrators.

Table 1–1 lists the installation documentation and the latest product version for which each document was updated.

Table 1–1 DECwindows Motif Installation Documentation

Title and Description	Software Version
HP DECwindows Motif for OpenVMS Cover Letter Describes the kit and contains any late-breaking information not included in the release notes.	DECwindows Motif Version 1.6
HP DECwindows Motif for OpenVMS New Features Describes the enhancements and features introduced with the current release of DECwindows Motif. This manual also describes features from previous releases not documented in other manuals. This manual should be reviewed before installing or using DECwindows Motif.	DECwindows Motif Version 1.6
HP DECwindows Motif for OpenVMS Release Notes Describes corrections, known problems, and restrictions introduced with the current release of DECwindows Motif. This manual also describes problems and restrictions from previous releases not documented in other manuals. This manual should be reviewed before installing or using DECwindows Motif.	DECwindows Motif Version 1.6
HP DECwindows Motif for OpenVMS Installation Guide Describes how to install the DECwindows Motif software.	DECwindows Motif Version 1.6
HP DECwindows Motif for OpenVMS Documentation Overview Lists and describes the contents and organization of the DECwindows Motif documentation set and provides information about the availability of the product documentation.	DECwindows Motif Version 1.6

1.2 User Documentation

The DECwindows Motif user documentation consists of manuals intended for general users and system administrators.

Table 1–2 lists the user and system management documentation and the latest product version for which each document was updated.

Table 1–2 DECwindows Motif User/System Management Documentation

Title and Description	Software Version
Using DECwindows Motif for OpenVMS Provides information about using DECwindows Motif techniques and features, customizing your environment, and advanced techniques such as using hyperapplications.	DECwindows Motif Version 1.1[1]
DECwindows Motif for OpenVMS Applications Guide Describes how to start, use, and exit from DECwindows Motif applications.	DECwindows Motif Version 1.2[1]
HP DECwindows Motif for OpenVMS Management Guide Provides information about setting up and maintaining the DECwindows Motif environment on both OpenVMS Alpha and OpenVMS I64 systems. It describes options for configuring the DECwindows client and server environments and provides tuning information when certain customization options are in effect.	DECwindows Motif Version 1.6[1]

[1]Refer to the latest version of the *HP DECwindows Motif for OpenVMS Release Notes* and *HP DECwindows Motif for OpenVMS New Features* for additional information on using DECwindows Motif.

1.3 New Desktop Documentation

This section provides information about the Common Desktop Environment manuals.

Table 1–3 lists the New Desktop documentation and the latest product version for which each document was updated.

Table 1–3 DECwindows Motif New Desktop Documentation

Title and Description	Software Version
Getting Started With the New Desktop This manual is designed for users of the New Desktop component of DECwindows Motif. It provides information for general users, system managers, and programmers. This manual describes the differences between the New Desktop environment and the Common Desktop Environment.	DECwindows Motif Version 1.2–4[1]
Common Desktop Environment: User's Guide Describes the basic features of the Common Desktop Environment (CDE) and how to use the desktop and desktop applications.	DIGITAL UNIX Version 4.0[1]

[1]Refer to the latest version of the *HP DECwindows Motif for OpenVMS Release Notes* and *HP DECwindows Motif for OpenVMS New Features* for additional information on the New Desktop.

(continued on next page)

Table 1–3 (Cont.) DECwindows Motif New Desktop Documentation

Title and Description	Software Version
Common Desktop Environment: Advanced User's and System Administrator's Guide Covers advanced tasks in customizing the appearance and behavior of CDE.	DIGITAL UNIX Version 4.0[1]
Common Desktop Environment: Programmer's Overview Provides a high-level view of the CDE development environment and the developer documentation set. Read this book before starting application design and development.	DIGITAL UNIX Version 4.0[1]
Common Desktop Environment: Programmer's Guide Provides information about integrating an existing application into CDE or about developing a new application that uses the features and functionality of CDE.	DIGITAL UNIX Version 4.0[1]
Common Desktop Environment: Help System Author's and Programmer's Guide Describes how to develop online help for CDE application software. It covers how to create help topics and how to integrate online help into an OSF/Motif application.	DIGITAL UNIX Version 4.0[1]
Common Desktop Environment: Style Guide and Certification Checklist Provides application design style guidelines and the list of requirements for CDE application-level certification. CDE requirements consist of the OSF/Motif Version 1.2 requirements along with CDE-specific additions.	DIGITAL UNIX Version 4.0[1]
Common Desktop Environment: Internationalization Programmer's Guide Provides information for internationalizing the desktop, enabling CDE applications to support various languages and cultural conventions in a consistent user interface.	DIGITAL UNIX Version 4.0[1]
Common Desktop Environment: Glossary Provides a comprehensive list of terms used in CDE. It is a source and reference base for all users of CDE.	DIGITAL UNIX Version 4.0[1]

[1]Refer to the latest version of the *HP DECwindows Motif for OpenVMS Release Notes* and *HP DECwindows Motif for OpenVMS New Features* for additional information on the New Desktop.

1.4 Programming Documentation

DECwindows Motif for OpenVMS Version 1.6 is based on the X Window System, Version 11 Release 6.6 (X11R6.6) and incorporates Motif Version 1.2, an industry-standard interface to the X Window System. As such, DECwindows Motif contains the following layers of programming resources:

- **X Library (Xlib)** – the lowest-level interface to the X Window System, Xlib provides routines for creating windows, managing windows, performing graphic functions, and handling input events.
- **X Toolkit Intrinsics (Xt)** – Also known as the Intrinsics, Xt provides routines for combining existing widgets into a user interface and for creating new widgets.

- **OSF/Motif Toolkit (Xm)** – Xm provides routines for including Motif widgets within an application. The Motif Window Manager (MWM) and the User Interface Language (UIL) compiler are integral to Motif.
- **HP (Digital) Extensions to Motif Toolkit (DXm)** – DXm includes additional widgets and convenience routines to manipulate widgets. HP also provides non-C bindings for all levels of programming resources.

DECwindows Motif programming documentation covers each layer of programming resources. Industry-standard reference materials are discussed for Xlib, Xt, and Motif. HP documentation supplements the industry-standard documentation and provides additional information in the following areas:

- Reference information for DECwindows-specific widgets
- Non-C binding information
- Porting guidelines for moving applications from XUI-based interfaces to DECwindows Motif
- Additional style guidelines for both Motif and DECwindows-specific widgets
- Tutorial guides that supplement industry-standard reference manuals and that describe how to use DECwindows added-value features

The DECwindows Motif programming documentation is organized into three categories, which are further described in the following sections:

Application programming (includes Xm and DXm)
Xlib programming
Device support and transport programming

1.4.1 Application Programming

If you are an application developer, you will need information about Xm, DXm, and Xt. You may also require information about non-C bindings and porting applications from XUI to Motif.

Table 1–4 lists the application programming documentation and the latest product version for which each manual was updated.

Table 1–4 DECwindows Motif Application Programming Documentation

Title and Description	Software Version
Industry-Standard Material	
OSF/Motif Style Guide (Prentice Hall) Describes the behavior and appearance of user interface components that comply with the OSF/Motif specification. Use this guide if you are an applications developer, a widget developer, a user interface developer, or a window manager developer.	OSF/Motif Release 1.2

(continued on next page)

Table 1–4 (Cont.) DECwindows Motif Application Programming Documentation

Title and Description	Software Version
Industry-Standard Material	
OSF/Motif Programmer's Guide (Prentice Hall) Describes how to write programs with the OSF/Motif Toolkit. The manual covers the following areas: Motif widget set Motif Resource Manager (MRM) MWM UIL Use this manual as your primary source of tutorial information for programming with the Motif Toolkit.	OSF/Motif Release 1.2
OSF/Motif Programmer's Reference (Prentice Hall) Describes all OSF/Motif Toolkit, MWM, and MRM routines. The routines are documented as standard manual pages with the following parts: • Syntax of the routine • Description of the routine, including the names and classes of all resources, the default values of the resources, the data types, and the method of access • Examples • Return values • Errors • Related information Use this manual as your primary source of reference information for the Motif Toolkit.	OSF/Motif Release 1.2
X Window System Toolkit (Digital Press) Documents Xt (more commonly known as the Intrinsics). The Intrinsics enable programmers to create a user interface from existing widgets and to create new widgets. The manual contains two main parts. The first part is a programming guide to using the Intrinsics. Each chapter in the guide covers a topic on two levels: one for application writers, the other for widget writers. The second part of the manual is the complete specification, which contains reference information for all Xt routines. Appendixes contain information about the following topics: Resource file format Translation table syntax Compatibility functions Intrinsics error messages Defined strings Parameter and return types Naming conventions X Registry	X Toolkit X11 Releases 5 to 7

(continued on next page)

Table 1–4 (Cont.) DECwindows Motif Application Programming Documentation

Title and Description	Software Version
HP Documentation	
DECwindows Companion to the OSF/Motif Style Guide Supplements material in the *OSF/Motif Style Guide* and provides guidelines for using the DECwindows-specific widgets.	DECwindows Motif Version 1.2[1]
DECwindows Extensions to Motif Provides reference information about DECwindows-specific widgets and the UIL extensions to support these widgets. The manual also describes additional convenience routines provided by DECwindows. The routine descriptions are for C bindings and include the same information as provided for the OSF/Motif routines. The UIL portion of the manual includes tables showing the complete DECwindows Motif widget set (OSF/Motif and DECwindows-specific widgets).	DECwindows Motif Version 1.2[1]
DECwindows Motif Guide to Application Programming Provides a tutorial for programmers using the DECwindows-specific widgets and additional convenience routines. DECwindows-specific widgets include the following: Color mix Compound string text Help Print Structured visual navigation (SVN) The manual contains many examples of how to use HP proprietary routines.	DECwindows Motif Version 1.2[1]
DECwindows Motif for OpenVMS Guide to Non-C Bindings Describes non-C bindings for all DECwindows Motif programming libraries. The bindings for Xlib are standard OpenVMS bindings that support all OpenVMS languages. The bindings for the Xt, Xm, and DXm are generic bindings that currently support Fortran and Pascal.	DECwindows Motif Version 1.2[1]
Porting XUI Applications to Motif Describes how to port applications developed for earlier XUI-based DECwindows to the DECwindows Motif platform. The manual documents the porting tools and provides additional guidelines.	DECwindows Motif Version 1.0[1]

[1]Refer to the latest version of the *HP DECwindows Motif for OpenVMS Release Notes* and *HP DECwindows Motif for OpenVMS New Features* for additional information on application programming.

1.4.2 Xlib Programming

Xlib programming documentation consists of three industry-standard reference manuals, and two HP programming guides.

Table 1–5 lists the Xlib programming documentation and the latest product version for which each manual was updated.

Table 1–5 DECwindows Motif Xlib Programming Documentation

Title and Description	Software Version
Industry-Standard Material	
X Window System: Core Library and Standards (Digital Press) Provides complete reference information about Xlib. The manual describes the following: • All Xlib Release 6 routines • The Inter-Client Communication Conventions Manual (ICCCM), which covers conventions that clients should use to communicate with each other • X Logical Font Descriptions (XLFD), which specify server-independent conventions for font names and properties • Xlib routine and X protocol request equivalence tables • Bitmap Distribution Format (BDF), which specifies font file formats	X Environment X11 Releases 6 and 6.1
X Window System: Core and Extension Protocols (Digital Press) Provides reference information about the core X Protocol and for many of the new language-independent extension protocols. The manual describes the following: X Window System Protocol X Display Manager Protocol X Font Service Protocol X Input Method Protocol Inter-Client Exchange Protocol X Session Management Protocol X Nonrectangular Window Shape Protocol X Synchronization Extension Protocol X Double Buffer Extension Protocol X Keyboard Extension Protocol X Input Device Extension Protocol X Image Extension Protocol X Big-Request Extension Protocol XC-MISC Extension Protocol X Record Extension Protocol XTest Extension Protocol	X Environment X11 Releases 6 and 6.1

(continued on next page)

Table 1–5 (Cont.) DECwindows Motif Xlib Programming Documentation

Title and Description	Software Version
Industry-Standard Material	
X Window System: Extension Libraries (Digital Press) Provides reference information about the C language extension libraries provided that support the X Window System extension protocols. The manual describes the C functions available in each of the following libraries: Inter-Client Exchange library X Session Management library X Nonrectangular Window Shape library X Synchronization Extension library X Double Buffer Extension library X Keyboard Extension library X Input Device Extension library X Image Extension library X Record Extension library XTest Extension library	X Environment X11 Releases 6 and 6.1
X and Motif Quick Reference Guide (Digital Press) Contains C binding information for all Xlib, Xt, and Xm routines. The manual also contains summaries of widget resources and data structures, as well as information on X fonts and colors.	X Environment X11 Release 5
HP Documentation	
VMS DECwindows Guide to Xlib (Release 4) Programming: MIT C Binding and *VMS DECwindows Guide to Xlib (Release 4) Programming: VAX Binding* Two HP Xlib programming guides are provided: one for MIT C style bindings and one for OpenVMS bindings that support the standard OpenVMS languages. These books serve as tutorials for Xlib programming and contain many sample programs. Examples are in C for the MIT C manual and in Fortran for the OpenVMS binding. Each book covers the following topics: Managing the client-server connection Working with windows Defining graphics characteristics Using color Drawing graphics Using pixmaps and images Writing text Handling events Using the X Resource Manager Using grabs Complying with the Inter-Client Communications Conventions Compiling fonts	DECwindows Motif Version 1.0[1]

[1]Refer to the latest version of the *HP DECwindows Motif for OpenVMS Release Notes* and *HP DECwindows Motif for OpenVMS New Features* for additional information on Xlib programming.

1.4.3 Device Support and Transport Programming

Due to significant changes to the transport interface, to the range of supported devices, and the discontinuation of support for user-written transports, the following manuals have been archived and are no longer considered a formal part of the DECwindows Motif documentation set:

- *VMS DECwindows Device Driver Manual*
- *VMS DECwindows Transport Manual*

For support purposes, online versions of both manuals remain available from the DECwindows Motif section of the OpenVMS Documentation web site. See Chapter 2 for information on accessing this site.

For information on the DECwindows Motif transport interface, see the *HP DECwindows Motif for OpenVMS New Features* manual and the *HP DECwindows Motif for OpenVMS Release Notes*.

2

Ordering and Availability Information

This chapter describes ordering and availability information for the DECwindows Motif documentation.

2.1 Obtaining HP Documentation

Table 2–1 lists the limited set of DECwindows Motif manuals that are available in hardcopy format. These manuals are only available as a set; the individual part numbers are included for reference only.

Table 2–1 DECwindows Motif Hardcopy Documentation Set

Manual Title	Part Number
HP DECwindows Motif for OpenVMS Cover Letter	—
HP DECwindows Motif for OpenVMS Release Notes	—
HP DECwindows Motif for OpenVMS New Features	AA–RT2CC–TE
HP DECwindows Motif for OpenVMS Documentation Overview	AA-RT25C-TE
HP DECwindows Motif for OpenVMS Installation Guide	AA-RT26C-TE
HP DECwindows Motif for OpenVMS Management Guide	BA402-90001

To order a hardcopy documentation set, call the HP support channel for your geography and reference one of the following kits:

- DECwindows Motif for OpenVMS Alpha Documentation kit (QA-MV4AB-GZ)
- DECwindows Motif for OpenVMS I64 Documentation kit (BA402-MN)

Online versions of all the DECwindows Motif manuals are available from the following locations:

- OpenVMS Alpha Online Documentation Library
- OpenVMS I64 Online Documentation Library
- DECwindows section of the OpenVMS Documentation web site

  The web site contains the most comprehensive listing of DECwindows Motif product documentation, including archived manuals. Visit the OpenVMS Documentation web site at http://www.hp.com/go/openvms/doc.

2.2 Obtaining Third-Party Manuals

HP no longer includes the third-party manuals listed in in Table 2–2 as part of the DECwindows Motif documentation set. You must order these manuals listed through their respective publishers or an authorized reseller.

Table 2–2 Third-Party Documentation Set

Manual Title	Author	Year	ISBN
Digital Press Manuals			
Digital Press is a division of Elsevier. For information about the Digital Press manuals, visit the web site for Elsevier at http://books.elsevier.com.			
X Window System: Core Library and Standards	Robert W. Scheifler James Gettys	1996	1-55558-154-4
X Window System: Core and Extension Protocols	Robert W. Scheifler James Gettys	1997	1-55558-148-X
X Window System: Extension Libraries	Robert W. Scheifler James Gettys	1997	1-55558-146-3
X Window System Toolkit The Complete Programmer's Guide and Specification (Second Edition)	Paul J. Asente Donna Converse Ralph R. Swick	1998	1-55558-178-1
X and Motif Quick Reference Guide (Second Edition)	Randi Rost	1993	1-55558-118-8
Prentice Hall Manuals			
Prentice Hall is now a unit of the Pearson Education. For information about the Prentice Hall manuals, visit the web site for Prentice Hall Professional Technical Reference at http://www.phptr.com.			
OSF/Motif Style Guide Release 1.2	Open Software Foundation	1992	0-13-643123-2
OSF/Motif Programmer's Reference Release 1.2	Open Software Foundation	1992	0-13-643115-1
OSF/Motif Programmer's Guide Release 1.2	Open Software Foundation	1992	0-13-643107-0

Other publishers have also produced documentation sets about the X Window system and Motif. Although the DECwindows Motif documentation set was not specifically designed to incorporate these manuals, they nonetheless provide useful information about X Windows and Motif. One popular set is from O'Reilly and Associates. Titles in the series include the following:

Volume 0: X Protocol Reference Manual
Volume 1: Xlib Programming Manual
Volume 2: Xlib Reference Manual
Volume 3M: X Window System User's Guide
Volume 4M: X Toolkit Intrinsics Programming Manual
Volume 5: X Toolkit Intrinsics Reference Manual
Volume 6A: Motif Programming Manual
Volume 6B: Motif Reference Manual, 2nd Edition
Volume 8: X Window System Administrator's Guide

For more information about these manuals, visit the Linux/UNIX section of the O'Reilly web site at http://linux.oreilly.com.